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# Heavy work investment: its motivational make-up and outcomes

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## Abstract

**Purpose** – The present study aims to investigate the motivational correlates of two types of heavy work investment: workaholism and work engagement. Building on Higgins's regulatory focus theory, the paper examines which work goals workaholic and engaged employees pursue and which strategies they use to achieve these goals. Furthermore, the paper examines how workaholism and work engagement relate to three different work outcomes: job satisfaction, turnover intention, and job performance.

**Design/methodology/approach** – Data from a cross-sectional survey study among 680 Dutch employees in the banking industry were analysed using structural equation modeling.

**Findings** – The analyses revealed that workaholism was primarily and positively associated with having a prevention focus, whereas work engagement was primarily and positively associated with having a promotion focus. Furthermore, workaholism was negatively related to job satisfaction and job performance, and positively related to turnover intention, whereas work engagement was positively associated with job satisfaction and job performance, and negatively associated with turnover intention. Both forms of heavy work investment almost fully mediated the associations between the regulatory foci and the three work outcomes.

**Research limitations/implications** – The conclusions rely on self-report data, a relatively homogeneous sample, and a cross-sectional design. This may have biased our findings to some degree and does not allow inferring causal conclusions.

**Practical implications** – The findings show that workaholic and engaged employees have different work goals and use different strategies to pursue these goals. Moreover, both forms of heavy work investment are oppositely related to work outcomes. Organizations may develop policies to reduce workaholism and to promote work engagement by influencing their employees' regulatory foci.

**Originality/value** – The present study demonstrates that two types of heavy work investment can be distinguished, each with a unique motivational make-up and a unique pattern of work outcomes.

**Keywords** Job satisfaction, Employee behaviour, Motivation (psychology), Employee turnover

**Paper type** Research paper



Although previous research has clearly shown that two types of heavy work investment (i.e. workaholism and work engagement) can be distinguished (e.g. Schaufeli *et al.*, 2006, 2008), little is known about their underlying motives. Building on Higgins's (1997, 1998) regulatory focus theory (RFT), the present study addresses this issue by examining the motivational correlates of workaholism and work engagement. Furthermore, the present study takes a process approach by investigating whether the associations between motivation and three selected work outcomes (job satisfaction, turnover intention, and job performance) are mediated

through workaholism and work engagement. In this way, we aim to increase our understanding of the links between motivation, heavy work investment, and work outcomes.

### **Workaholism**

Workaholism refers to “the tendency to work excessively hard and being obsessed with work, which manifests itself in working compulsively” (Schaufeli *et al.*, 2009b, p. 322). Previous research has shown that workaholism is associated with a variety of negative outcomes, such as having poor social relationships outside work, dissatisfaction with life (Bonebright *et al.*, 2000), and job strain and health complaints (Burke, 2000). However, at present the relations between workaholism on the one hand and job satisfaction, turnover intention, and job performance on the other hand are still unclear. Specifically, some studies reported positive associations between workaholism and job satisfaction (Burke, 1999; Shimazu and Schaufeli, 2009), whereas other studies found negative relations (e.g. Burke and MacDermid, 1999). As far as turnover intention and job performance are concerned, virtually no empirical research has been carried out that examined their relation with workaholism (Schaufeli *et al.*, 2006). To our knowledge, only one study has examined the association between workaholism and turnover intentions, showing that workaholic employees reported a greater intention to quit (Burke and MacDermid, 1999). Furthermore, workaholism appeared to be weakly, but positively related to extra-role performance in one study (Schaufeli *et al.*, 2006) and negatively to overall job performance in a second study (Shimazu and Schaufeli, 2009). In spite of the inconsistent and limited amount of research, it appears reasonable to consider workaholism as a “bad” type of heavy work investment.

### **Work engagement**

Work engagement refers to a positive, fulfilling, work-related state of mind. It is characterised by high scores on three dimensions: vigour (referring to energy and mental resilience while working, the willingness to invest effort in one’s work, and persistence in the face of difficulties), dedication (i.e. high work involvement, a sense of significance, and high levels of enthusiasm, inspiration, pride, and challenge), and absorption (i.e. being fully concentrated and deeply engrossed in one’s work; cf. Schaufeli *et al.*, 2002).

Work engagement is mainly associated with positive outcomes, such as organisational commitment (Schaufeli *et al.*, 2008), life satisfaction, mental and physical health (Schaufeli and Salanova, 2007), and personal initiative (Sonnentag, 2003). Further, engaged employees are satisfied with their job (Schaufeli *et al.*, 2008), do not intend to quit their job (Schaufeli and Bakker, 2004), and perform well at work (Bakker and Demerouti, 2008, for an overview). Apparently, work engagement can be considered as a “good” type of heavy work investment.

### **Work motivation**

One important and unanswered question is why workaholic and engaged employees work so hard. Since behaviour is assumed to arise from (conscious or unconscious) motivations, studying the underlying motivations of workaholism and work engagement may answer this question. A motivational approach that could be

useful here is Higgins's (1997, 1998) regulatory focus theory (RFT), which extends the hedonic principle that asserts that individuals approach pleasure and avoid pain. Although the hedonic principle is often used to explain human behaviour, it is unclear how individuals approach pleasure and avoid pain. RFT addresses this issue by proposing that individuals use different strategies to approach pleasure and to avoid pain. More specifically, RFT distinguishes between two motivational systems: the promotion system and the prevention system. These two systems differ in terms of the focal needs that are attempted to be satisfied, the goals that are pursued, and the psychological situations that matter (Brockner and Higgins, 2001). Promotion-focused individuals seek to satisfy the need for growth and development. They are sensitive to the pleasurable presence or painful absence of positive outcomes and they are likely to approach matches to desired goals, i.e. advancement and gains (hopes, wishes, and aspirations). For instance, a promotion-focused employee who considers good performance as an accomplishment is likely to approach matches to this desired goal by performing extra-role behaviour. When desired goals are obtained, promotion-focused individuals experience cheerfulness-related emotions, such as enthusiasm and joy, while failing to obtain these goals leads to dejection-related emotions, such as disappointment and dissatisfaction.

Conversely, prevention-focused individuals seek to satisfy the need for security. They are sensitive to the pleasurable absence or painful presence of negative outcomes and they are likely to avoid mismatches to desired goals, i.e. safety and non-losses (duties, obligations, and responsibilities). For instance, a prevention-focused employee may construe good performance as a responsibility and is likely to avoid mismatches to this desired goal by ensuring that everything goes perfectly well. For prevention-focused individuals, obtaining desired goals is associated with quiescence-related emotions, such as contentment and calmness, while failing to obtain these goals is linked to agitation-related emotions, such as feeling uneasy and afraid. Thus, RFT proposes that individuals with a promotion focus tend to approach matches to desired goals, whereas individuals with a prevention focus are inclined to avoid mismatches to desired goals.

#### *Workaholism, work engagement, and work motivation*

Since the promotion and prevention systems are differently linked to how individuals pursue different goals, RFT could be useful in examining the motivational correlates of workaholism and work engagement. As regards workaholism, there are at least two reasons to believe that workaholism is linked to prevention focus. First, workaholism is related to a variety of negative personality characteristics, including neuroticism (Burke *et al.*, 2006). Neurotic individuals are likely to report personal insecurity, are prone to experiencing stress, and are strongly affected by negative life events. This suggests that neurotic individuals are sensitive to the absence or presence of negative outcomes and they seem to avoid mismatches to desired goals. Previous research has supported this reasoning, showing that neuroticism relates positively to having avoidance goals (Elliot and Sheldon, 1997, 1998). Since workaholic employees are inclined to be neurotic, they are likely to pursue avoidance goals as well. Second, it has been proposed that workaholism develops in response to feelings of low self-worth and insecurity (Mudrack, 2006). As individuals with a negative self-view tend to pursue avoidance or prevention goals, i.e. to avoid negative outcomes (Judge *et al.*, 2005), it is

likely that workaholic employees are propelled by avoidance motivation that is the hallmark of a prevention focus. Hence, both lines of reasoning lead to the expectation that workaholism is positively associated with having a prevention focus (*H1*).

Conversely, work engagement is positively related to a variety of personal resources such as self-esteem, self-efficacy, and optimism (Xanthopoulou *et al.*, 2007), indicating that engaged employees are confident about their capabilities and optimistic about the future. Individuals with a positive self-view are inclined to pursue self-concordant goals (Elliot and Sheldon, 1998; Elliot *et al.*, 1997). Therefore, they are likely to pursue approach goals, i.e. positive outcomes like learning and development, or accomplishment through the achievement of aspirations (Judge *et al.*, 2005). This suggests that engaged employees are propelled by approach motivation that is characteristic of a promotion focus. Hence, work engagement is positively associated with having a promotion focus (*H2*).

### Work outcomes

The outcomes of workaholism and work engagement have been examined more frequently than their underlying motivations. However, it is still unclear how workaholism relates to job satisfaction, turnover intention, and job performance. For instance, workaholic employees spend much time on work and tend to work overtime (Schaufeli *et al.*, 2009b), but they do not find their work activities interesting, enjoyable, or satisfying (Van Beek *et al.*, 2011, 2012). At the same time, they experience relatively high job demands (such as workload) and relatively low job resources (such as autonomy and social support from their supervisors) (Schaufeli *et al.*, 2008). Job demands are associated with physiological and psychological costs, and can become job stressors when they require sustained effort from which one cannot adequately recover, while job resources have the potential to reduce job demands and foster learning and development (Bakker and Demerouti, 2007). Thus, workaholic employees must stand their ground in an unfavourable work situation that may hinder their personal growth and development (cf. Karasek and Theorell, 1990). Worse still, workaholic employees do not receive more rewards for their efforts than others (Burke, 2001). Therefore, we expect that workaholism is negatively associated with job satisfaction (*H3*) and positively associated with turnover intention (*H4*).

Workaholic employees work hard to preserve and enhance feelings of self-worth and self-esteem (Van Beek *et al.*, 2012). It is suggested that such motives detract from effective job performance (Gagné and Deci, 2005). Unfavourable work characteristics may also affect job performance negatively. With relatively poor job resources at their disposal (Schaufeli *et al.*, 2008), workaholic employees are less able to reduce the potentially negative impact of the high job demands that they experience (Bakker *et al.*, 2004) and have little access to the motivational potential that job resources may have (Bakker and Demerouti, 2007). Also, workaholic employees have little opportunity to recover adequately from their work sufficiently (Van Beek *et al.*, 2011). They not only work excessively, they also think about their work continuously, i.e. even when they are not working (Schaufeli *et al.*, 2009b). Compared to others, they report more work-home interference (Schaufeli *et al.*, 2009a). Over time, workaholic employees may become exhausted due to their high effort expenditure at work (Taris *et al.*, 2005). Furthermore, because workaholic employees display perfectionistic tendencies (Kanai *et al.*, 1996), they may find it difficult to delegate work tasks to their colleagues

(Bonebright *et al.*, 2000). Consequently, workaholic employees may not always achieve their work goals. Hence, it is expected that workaholism is negatively associated with job performance (*H5*).

Unlike workaholic employees, engaged employees work hard because they want to. They value and enjoy their work activities, find these activities interesting, and derive satisfaction from working (Van Beek *et al.*, 2011, 2012). Furthermore, engaged employees experience job resources and may report relatively high job demands (Schaufeli *et al.*, 2008; Van Beek *et al.*, 2012). Such a work situation stimulates personal growth, development, and learning (Bakker and Demerouti, 2007). Moreover, engaged employees experience a good work-home balance (Schaufeli *et al.*, 2008). Therefore, we expect that work engagement is positively associated with job satisfaction (*H6*) and negatively with turnover intention (*H7*).

Since engaged employees experience their work as valuable, enjoyable, interesting, and satisfying, they are likely to go beyond what is necessary to fulfil their duty and to be successful in their job (Judge *et al.*, 2005). At the same time, the resources that engaged employees experience in their jobs are likely to motivate them to go beyond their duties too and to perform work activities that are beneficial for the organisation as a whole (Bakker and Demerouti, 2007; Bakker *et al.*, 2004). Furthermore, having access to performance feedback, and support from supervisors and colleagues (two important job resources) contribute to good job performance (Bakker and Demerouti, 2007). Hence, it is expected that work engagement is positively related to job performance (*H8*). Figure 1 presents our research model.

Method

Sample and procedure

Participants were recruited in a large organisation in the banking industry. We contacted the HR manager of this organisation who gave permission to collect data. Different HR officers invited in total 2,023 employees who held different positions, such as sales manager, advisor financial markets, controller, test manager, commercial support manager, and project manager. Participants received an e-mail with the request to fill out a digital questionnaire on work motivation. They were informed about the nature and general aim of the study and they were told that participation was voluntary.

Of the 2,023 employees that were approached, 680 employees (464 males,  $M_{age} = 41.1$  years,  $SD = 9.2$ , and 216 females,  $M_{age} = 37.8$  years,  $SD = 7.9$ ) responded to our call (33.6 per cent response rate). The majority held a college or university degree (82.2 per cent). On average, they had been working in their current position for 3.4 years ( $SD = 3.7$ ) and worked 42.6 hours ( $SD = 8.4$ ) per week.

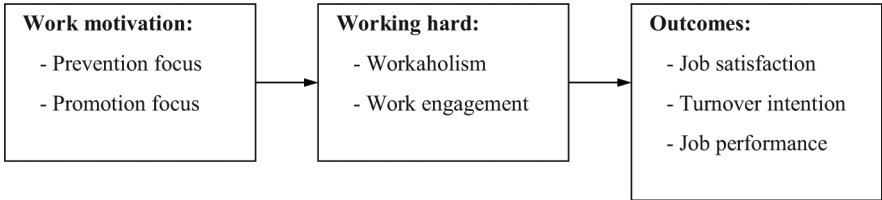


Figure 1.  
Heuristic research model

### *Instruments*

All study variables were measured with established, validated Dutch scales.

Workaholism was measured with the Dutch work addiction scale (DUWAS) (Schaufeli *et al.*, 2009b), which consists of two subscales: working excessively and working compulsively. Working excessively was measured with nine items ( $\alpha = 0.75$ ), such as “I seem to be in a hurry and racing against the clock”, whereas Working Compulsively was measured with seven items ( $\alpha = 0.78$ ), including “I feel that there’s something inside me that drives me to work hard” (1 = “(almost) never”, 4 = “(almost) always”). These subscales are adapted from Robinson’s (1999) compulsive tendencies scale and Spence and Robbins’ (1992) drive scale, respectively.

Work engagement was measured with the nine-item short form of the Utrecht work engagement scale (UWES) (Schaufeli *et al.*, 2006). Vigor was measured with three items ( $\alpha = 0.87$ ), including “At my work, I feel strong and vigorous”, dedication was measured with three items ( $\alpha = 0.90$ ), such as “I am enthusiastic about my job”, and absorption was measured with three items ( $\alpha = 0.71$ ) as well, including “I am immersed in my work” (0 = “never”, 6 = “always”).

Work motivation was measured with the promotion and prevention scales developed by Lockwood *et al.* (2002), and translated and adapted to the work situation by Brenninkmeijer *et al.* (2010) prevention focus was measured with nine items ( $\alpha = 0.76$ ), including “I am focused on preventing negative events in my work.” Promotion focus was also measured with nine items ( $\alpha = 0.80$ ), such as “I often think about how I will achieve success in my work” (1 = “not at all true of me”, 5 = “very true of me”).

Job satisfaction was measured with three items ( $\alpha = 0.94$ ) devised by Van Veldhoven and Meijman (1994), including “I am satisfied with my current job” (1 = “completely disagree”, 7 = “completely agree”).

Turnover intention was also measured with three items ( $\alpha = 0.85$ ) devised by Van Veldhoven and Meijman (1994), such as “I intend to change jobs during the next year” (1 = “completely disagree”, 7 = “completely agree”).

Finally, job performance was measured with an item from the World Health Organization Health and work performance questionnaire (HPQ) (Kessler *et al.*, 2003). Respondents were asked to rate their overall work performance during the last four weeks on a self-anchoring scale, ranging from 0 to 10 (representing the worst and best possible work performance a person could have on his/her job, respectively). This one-item scale can be considered a valid measure of overall job performance (cf. Kessler *et al.*, 2003; Shimazu and Schaufeli, 2009).

### *Statistical analyses*

Table I shows the mean values, standard deviations, and inter-correlations for all study variables. Structural equation modelling methods in AMOS (Arbuckle, 2007) were used to test our hypotheses simultaneously. Maximum likelihood estimation was used and the goodness-of-fit of the tested models was evaluated using the  $\chi^2$  test statistic, the normed fit index (NFI), the comparative fit index (CFI), and the root mean square error of approximation (RMSEA). Values larger than 0.90 for NFI and CFI and 0.08 or lower for RMSEA signify acceptable model fit (Byrne, 2009).

Bootstrapping techniques (2,000 iterations) were used to examine the indirect effects of the regulatory foci on job satisfaction, turnover intention, and job performance



**Table I.**  
Means (M), standard deviations (SD), and correlations between the variables, with internal consistencies (Cronbach's  $\alpha$ ) on the diagonal

Variable	M	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>Working hard</i>												
(1) Working excessively	2.13	0.44	0.75									
(2) Working compulsively	1.89	0.51	0.68	0.78								
(3) Vigour	4.70	1.07	-0.08	-0.14	0.87							
(4) Dedication	4.77	1.16	0.00	-0.12	0.78	0.90						
(5) Absorption	4.16	1.15	0.09	0.05	0.66	0.72	0.71					
<i>Work motivation</i>												
(6) Prevention focus	2.99	0.55	0.25	0.36	-0.19	-0.16	-0.01	0.76				
(7) Promotion focus	3.71	0.45	0.19	0.14	0.27	0.31	0.35	-0.01	0.80			
<i>Work outcomes</i>												
(8) Job satisfaction	5.60	1.20	-0.11	-0.24	0.62	0.74	0.47	-0.21	0.20	0.94		
(9) Turnover intention	3.74	1.46	0.16	0.17	-0.39	-0.47	-0.30	0.09	-0.03	-0.59	0.85	
(10) Job performance	7.87	0.87	-0.07	-0.10	0.27	0.26	0.19	-0.12	0.19	0.28	-0.13	-

**Notes:** Correlations of 0.08 and higher are significant at  $p < 0.05$ , correlations of 0.11 and higher are significant at  $p < 0.01$ ;  $n=680$

through workaholism and work engagement. The indirect effect of a predictor variable  $x$  (i.e. a prevention or promotion focus) on an outcome variable  $y$  (turnover intention, job satisfaction, and performance) through a presumed mediator  $m$  (workaholism and work engagement) was examined by setting the path coefficient for the direct effect of the predictor variable  $x$  on the outcome variable  $y$  to zero, together with the path coefficients of all other paths linking  $x$  to  $y$  (that is, the paths involving the second mediator variable, cf. Preacher and Hayes, 2008; Ten Brummelhuis *et al.*, 2010). An indirect effect is rejected when the 95 per cent confidence interval (CI) includes zero.

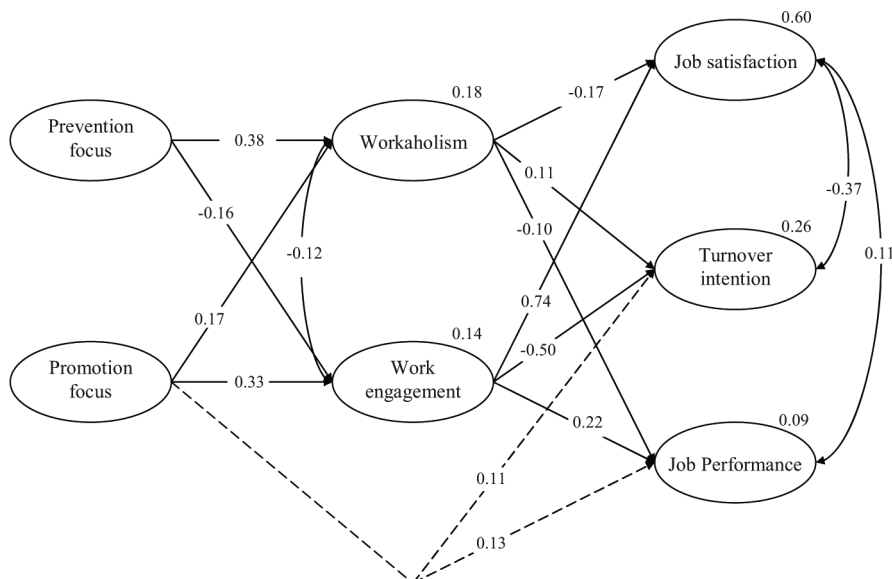
## Results

### Testing the research model

The research model (model 1) fitted the data well,  $\chi^2$  ( $n = 680$ ,  $df = 27$ ) = 209.06, NFI = 0.93, CFI = 0.94, RMSEA = 0.10, thus providing a good starting point for further analysis. Inspection of the modification indices suggested that paths between prevention focus and work engagement, promotion focus and workaholism, promotion focus and turnover intention, and promotion focus and job performance should be added. This modified model (model 2) fitted the data well,  $\chi^2$  ( $n = 680$ ,  $df = 23$ ) = 149.74, NFI = 0.95, CFI = 0.96, RMSEA = 0.09, and significantly better than model 1,  $\Delta\chi^2$  ( $n = 680$ ,  $df = 4$ ) = 59.32,  $p < 0.001$ . Finally, all non-significant paths were removed, resulting in the final model (model 3) that is shown in Figure 2. The final model met the criteria for acceptable fit as well,  $\chi^2$  ( $n = 680$ ,  $df = 25$ ) = 149.79, NFI = 0.95, CFI = 0.96, RMSEA = 0.09.

### Testing the hypotheses

*Work motivation, workaholism, and work engagement.* H1 stated that workaholism would be positively associated with having a prevention focus. The findings displayed in Figure 2 confirm this hypothesis by showing a positive effect for this association



**Figure 2.** Final model with standardized path coefficients and squared multiple correlations



( $\beta = 0.38$ ). Analogously, *H2* proposed that work engagement would be positively associated with having a promotion focus. In line with this hypothesis, we found a positive effect for this association ( $\beta = 0.33$ ). Somewhat unexpectedly, we also found that high scores on workaholism were associated with high scores on promotion focus ( $\beta = 0.17$ ) and that high scores on work engagement were linked to low scores on prevention focus ( $\beta = -0.16$ ). Thus, workaholic employees tend to score relatively high on both regulatory foci, whereas engaged employees tend to score high on promotion focus and low on prevention focus.

*Workaholism, work engagement, and work outcomes.* The findings displayed in Figure 2 show a negative relation between workaholism on the one hand and job satisfaction ( $\beta = -0.17$ ) and job performance ( $\beta = -0.10$ ) on the other hand, supporting *H3* and *H5* respectively. *H4*, stating that workaholism would be positively associated with turnover intention, was also confirmed ( $\beta = 0.11$ ). Furthermore, the findings displayed in Figure 2 support *H6-H8*. As expected, work engagement was positively related to job satisfaction ( $\beta = 0.74$ , *H6* confirmed) and job performance ( $\beta = 0.22$ , *H8* confirmed), but negatively related to turnover intention ( $\beta = -0.50$ , *H7* confirmed).

*Direct versus indirect effects*

In addition to the hypothesised relations, we also found direct effects between promotion focus and two of the three outcome variables (cf. Figure 2). Having a promotion focus was associated with higher scores on turnover intention ( $\beta = 0.11$ ) and higher self-rated performance ( $\beta = 0.13$ ).

Regarding the indirect effects, Table II presents the findings for the bootstrapping analyses. The results show whether or not specific indirect paths differ significantly from zero, i.e. whether it is plausible that a predictor *x* is connected with an outcome *y* through a mediator *m* (Preacher and Hayes, 2008). Table II shows that all mediated pathways (i.e. all connections of the two regulatory foci to the three outcome variables, through the two mediator variables workaholism and work engagement) were

**Table II.**  
Standardized estimates and confidence intervals for the indirect associations ( $x \rightarrow$  mediator  $m \rightarrow y$ ) between promotion/prevention focus and various work outcomes, with workaholism and work engagement as mediators

			Bootstrapping Estimate	SE	95% CI	
					Lower	Upper
<i>x</i> Prevention focus	$\rightarrow$ Mediator <i>m</i>	$\rightarrow y$				
	$\rightarrow$ Workaholism	$\rightarrow$ Job satisfaction	-0.06**	0.01	-0.09	-0.04
		$\rightarrow$ Turnover intention	0.04**	0.02	0.01	0.07
		$\rightarrow$ Job performance	-0.04*	0.02	-0.07	-0.01
	$\rightarrow$ Work engagement	$\rightarrow$ Job satisfaction	-0.09**	0.03	-0.15	-0.03
		$\rightarrow$ Turnover intention	0.06**	0.02	0.02	0.11
Promotion focus		$\rightarrow$ Job performance	-0.03**	0.01	-0.05	-0.01
	$\rightarrow$ Workaholism	$\rightarrow$ Job satisfaction	-0.03**	0.01	-0.06	-0.02
		$\rightarrow$ Turnover intention	0.03**	0.01	0.01	0.06
		$\rightarrow$ Job performance	-0.01	0.01	-0.03	0.00
	$\rightarrow$ Work engagement	$\rightarrow$ Job satisfaction	0.26**	0.03	0.20	0.32
		$\rightarrow$ Turnover intention	-0.16**	0.02	-0.20	-0.12
		$\rightarrow$ Job performance	0.09**	0.02	0.06	0.14

Notes: \* $p < 0.05$ ; \*\* $p < 0.01$

significant, except for the path that linked promotion focus to job performance through workaholism. The general trends that emerge from this table are the following. As for the prevention focus, the indirect paths were all associated with overall negative outcomes. The indirect effects between prevention focus and the outcome variables job satisfaction and job performance were negative (indirect effects varying from 0.03 to 0.09), and the indirect effects between prevention focus and the outcome variable turnover intention were positive (indirect effects were 0.04 and 0.06). Thus, the effects of prevention focus on job satisfaction, turnover intention, and job performance were mediated by both workaholism and work engagement.

As for the promotion focus, the indirect effects showed a different pattern. The indirect paths involving work engagement were all associated with overall positive outcomes in terms of job satisfaction (an indirect effect of 0.26), turnover intention (an indirect effect of  $-0.16$ ), and job performance (an indirect effect of 0.09). However, we also found indirect paths linking promotion focus to work outcomes through workaholism, suggesting that having a promotion focus is associated with lower levels of job satisfaction (an indirect effect of  $-0.03$ ) and higher turnover intentions (an indirect effect of 0.03). Hence, the effects of promotion focus on job satisfaction and turnover intention were mediated by both workaholism and work engagement, but the effect of promotion focus on job performance was only mediated by work engagement.

## Discussion

Building on Higgins's regulatory focus theory (Higgins, 1997, 1998), the present study examined the motivational correlates of workaholism and work engagement. Specifically, we examined whether workaholic and engaged employees pursue different work goals and use different strategies to achieve these goals. By doing so, it advances our knowledge about the driving forces underlying these two forms of heavy work investment. Furthermore, the present study examined how workaholism and work engagement are related to three work outcomes: job satisfaction, turnover intention, and job performance. Although it was already known how these work outcomes relate to work engagement (Bakker and Demerouti, 2008; Schaufeli and Bakker, 2004; Schaufeli *et al.*, 2008), their relations with workaholism were still unclear. The most important findings are discussed below.

### *Workaholism and work motivation*

The present study revealed that workaholism is first and foremost positively associated with having a prevention focus. Workaholic employees are sensitive to the absence or presence of negative outcomes. They use avoidance strategies, meaning that they are inclined to avoid mismatches to their work goals that include their obligations and responsibilities. Earlier research has shown that achievement of these goals is accompanied by quiescence-related emotions, while failure is accompanied by agitation-related emotions (Higgins, 1997, 1998). This finding supports the idea that workaholic employees work excessively hard to avoid distress and negative feelings, such as irritability, anxiety, shame, and guilt, that they experience when they are not working (Killinger, 2006). In addition, this finding is consistent with the idea that workaholic employees work excessively hard in response to feelings of low self-worth and insecurity (Mudrack, 2006): By working hard they may avoid having a negative self-view.

Although unexpectedly and to a much lesser extent, workaholism is also positively associated with having a promotion focus. This suggests that workaholic employees are to some extent sensitive to the presence or absence of positive outcomes and that they are likely to use approach strategies, i.e. to approach matches to their work goals that include their hopes, wishes, and aspirations, as well. Achieving these goals may well bring about cheerfulness-related emotions (cf. Higgins, 1998), qualifying the picture of workaholic employees as sad individuals who primarily work to avoid negative emotions (Killinger, 2006). This finding also suggests that having a promotion focus is not necessarily associated with positive outcomes. Taken together, these findings show that the motivational make-up of workaholism is more complex than is commonly assumed. Workaholic employees pursue divergent work goals, ranging from their obligations and responsibilities to their ideals, and they use both avoidance and approach strategies.

#### *Work engagement and work motivation*

As expected, the present study revealed a strong and positive association between work engagement and having a promotion focus. Engaged employees are sensitive to the presence or absence of positive outcomes (cf. Higgins, 1998). They use approach strategies, indicating that they are inclined to approach matches to their work goals that represent their hopes, wishes, and aspirations. Achievement of their work goals leads to cheerfulness-related emotions, whereas failing to achieve these work goals leads to dejection-related emotions. This is consistent with the finding that individuals with a positive self-view (such as engaged employees, Xanthopoulou *et al.*, 2007) are likely to pursue self-concordant goals (Elliot and Sheldon, 1998; Elliot *et al.*, 1997). This also supports the finding that engaged employees work hard because they identify themselves with the underlying value of their work behaviour and because they are intrinsically motivated, i.e. experience their work activities as enjoyable and interesting (Van Beek *et al.*, 2012).

Interestingly, engaged employees are less likely to have a prevention focus than others. Thus, they are less likely to use avoidance strategies and may avoid to a lesser degree negative outcomes from happening than others in a similar situation might do (cf. Higgins, 1998). This suggests that in the process of achieving positive outcomes due to their strong promotion focus, engaged employees may sometimes be less inclined to avoid negative outcomes. It is tempting to consider the implications of this specific motivational make-up for the behaviour of top-managers. Is it possible that engaged managers with a high promotion and a low prevention focus tend to neglect the risks that their decisions involve for their company and its employees? The current study does not address this issue, but the relations between work engagement, regulatory focus, and the quality of decision making – either in the work context or elsewhere – would seem potentially interesting and relevant.

#### *Workaholism and work outcomes*

The present study revealed that workaholism is negatively associated with job satisfaction and job performance, and positively associated with turnover intention. Since workaholic employees do not experience their work in itself as interesting or enjoyable (Van Beek *et al.*, 2011, 2012) and must deal with unfavourable work characteristics (Schaufeli *et al.*, 2008; Van Beek *et al.*, 2012), it is perhaps not surprising

that they are often not satisfied and have the intention to quit their job. Furthermore, besides their job dissatisfaction and the unfavourable work characteristics, their perfectionism as well as their difficulties with delegating work may hinder them in achieving their work goals (Bonebright *et al.*, 2000; Kanai *et al.*, 1996). Our findings are in line with the few studies addressing these relations (Burke and MacDermid, 1999; Shimazu and Schaufeli, 2009). All in all, the present study supports the idea that workaholism is mainly associated with adverse work outcomes (cf., Schaufeli *et al.*, 2008).

#### *Work engagement and work outcomes*

The present study revealed that work engagement is positively associated with job satisfaction and job performance, and negatively associated with turnover intention. Since engaged employees find their work valuable, are intrinsically motivated for their work (Van Beek *et al.*, 2011, 2012), and usually work in an environment that can be regarded as stimulating and challenging (Bakker and Demerouti, 2007; Schaufeli *et al.*, 2008), it comes as no surprise that they are satisfied and do not intend to quit their job. These findings are in line with previous results (Schaufeli and Bakker, 2004; Schaufeli and Salanova, 2007; Schaufeli *et al.*, 2008). Furthermore, engaged employees perform well. Since they evaluate their work activities positively (Van Beek *et al.*, 2011, 2012) and work in a stimulating and challenging work environment (Schaufeli *et al.*, 2008), it is plausible that they are willing to go the extra mile and that they are motivated to perform (Judge *et al.*, 2005; Taris and Schreurs, 2009). Furthermore, job resources such as feedback from supervisors and colleagues may affect their job performance positively (Bakker and Demerouti, 2007). Taken together, the present study supports the idea that work engagement is mainly associated with beneficial work outcomes.

#### *Work motivation and work outcomes*

Finally, the present study revealed direct and indirect associations between the regulatory foci and the work outcomes. Specifically, having a promotion focus is positively associated with turnover intention and job performance. Although having a high turnover intention would seem to fit well with the notion of being opportunity-oriented, this finding shows that having a promotion focus is neither necessarily nor unequivocally associated with positive outcomes, at least not from an organisational point-of-view. Furthermore, workaholism and work engagement mediate the associations between prevention focus on the one hand and job satisfaction, turnover intention, and job performance on the other hand. In general, having a prevention focus is related to overall negative outcomes through workaholism and work engagement. Although the indirect relations between promotion focus and work outcomes via work engagement are associated with overall positive outcomes, the indirect relations via workaholism are associated with overall negative outcomes. However, it is likely that the latter will usually be compensated by the strong indirect effects of promotion focus through work engagement.

#### *Study limitations*

One limitation of the present study is that it relied exclusively on self-report data. Therefore, our results may have been vulnerable to common method bias and the wish to answer consistently that may have inflated the relations among the study variables

(Conway, 2002). However, Spector (2006) argues that this concern has been distorted and exaggerated with the passage of time. Specifically, he discusses several studies that show that self-report studies do not guarantee significant results, that social desirability does not often inflate the correlations, and that there is no consistent evidence that negative affectivity influence the correlations. Moreover, Table I shows that the strength of the relations among the study variables differs substantially. This disagrees with the assumption that the associations among the variables have been biased by a common underlying process that influences these associations strongly. Thus, it is unlikely that common method variance has seriously affected our findings.

Secondly and more or less in line with the previous limitation, the present study revealed a negative association between workaholism and performance. Although this finding is suggestive, it must be noted that job performance was measured subjectively. As employees with a compulsion to work have the propensity to perceive a discrepancy between their job performance expectations and their job performance evaluations (Clark *et al.*, 2010), workaholic employees may evaluate their own performance as below par, even if others would rate their performance as being acceptable or good. Therefore, it is desirable that future research incorporates objective job performance measures as well.

A third limitation of the present study is our homogeneous sample. Participants were all employed at the same company and were for the most part male, in their thirties or forties, and highly educated. This may have restricted the range of the true scores on the study variables and, in turn, may have decreased the strength of the relations among the study variables. However, the variances of workaholism and work engagement in the present study are comparable to that in previous research with a heterogeneous sample (Van Beek *et al.*, 2011). Although examination of our hypotheses in a heterogeneous sample would increase the generalizability of our results, at present there is no reason to assume that the homogeneity of our sample has severely biased our findings.

Finally, the most important limitation of the present study is its cross-sectional design. Therefore, it cannot be concluded that a particular regulatory focus leads to a specific type of heavy work investment and that a particular type of heavy work investment leads to a specific work "outcome". For example, it would seem possible that low task performance would lead to lower work engagement since engaging unsuccessfully in a particular activity will probably lower one's commitment to and enthusiasm for that activity. Similarly, the fact that workaholic employees work harder than other employees could well mean that they are also more active than these others in thinking about ways to prevent bad things from happening or to be successful in their work. In order to address these competing explanations for the current findings, future research should preferably employ a longitudinal design.

#### *Scientific implications*

Despite these limitations, the present study advances our knowledge about heavy work investment in at least two respects. Firstly, as mentioned earlier, the present study provides insight into the driving forces underlying workaholism and work engagement. Although previous research provided some indications regarding the psychological mechanisms underlying these two forms of working hard (e.g. Schaufeli *et al.*, 2006, 2008), the present study is the first that was based on Higgins' (1997, 1998)

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regulatory focus theory. By doing so, it showed that regulatory focus theory is useful in studying the work goals that workaholic and engaged employees pursue and the strategies they use to achieve these goals.

Secondly, the present study provides additional evidence for the associations between workaholism and work engagement on the one hand and the three work outcomes – job satisfaction, turnover intention, and job performance – on the other hand. Since workaholism is linked to adverse work outcomes and work engagement is related to beneficial work outcomes, the present study supports the idea that workaholism is a “bad” type of working hard and work engagement is a “good” type of working hard. In general, the present study demonstrates that the motivational correlates and work outcomes of workaholism and work engagement differ substantially and meaningfully, supporting the idea that workaholism and work engagement are two different forms of heavy work investment.

### *Practical implications*

The present study paves the way for the development of adequate prevention and intervention programs for HRM practice. Like previous research has suggested (e.g. Schaufeli *et al.*, 2008), organisations should discourage working hard due to a strong, irresistible inner drive, whereas there are no obvious objections against encouraging working hard due to a passion for work. Although the development of the prevention system as well as the promotion system is rooted in childhood (Higgins, 1997, 1998), the work context may influence the strength of these two systems (cf. Brockner and Higgins, 2001).

Organisations may shape their employee’s regulatory foci by having managers serving as role models, use of language and feedback, and rewarding procedures (cf. Brockner and Higgins, 2001). For instance, individuals tend to deduce from others the appropriate ways to behave in uncertain situations, such as the work context. Therefore, behaviour that is indicative for a promotion focus is likely to be followed by the same kind of behaviour and regulatory focus. Furthermore, language and feedback that focuses on hopes, wishes, and aspirations promote a promotion focus, whereas language and feedback that focuses on duties and responsibilities promote a prevention focus. Also, reward systems in which employees are rewarded when they perform well and not rewarded when they fall short may stimulate a promotion focus. Conversely, reward systems in which employees are punished when they do not perform well and not punished when they do well may strengthen a prevention focus. However, some organisations pursue goals that are prevention-focused or promotion-focused by their very nature. For instance, an electricity supply firm only gets (negative) feedback of their customers when it fails to deliver electricity. In contrast, a consultancy firm gets (positive) feedback of their customers when it does provide adequate consultancy.

### *Concluding comment*

In conclusion, the present study demonstrates that two types of heavy work investment, each with a unique motivational make-up and a unique pattern of work outcomes, can be distinguished. While workaholic employees work hard to achieve success and to avoid failure, engaged employees work hard to achieve success (and may neglect the risk of failure). Furthermore, of these two types of heavy work



investment, workaholism is associated with negative work outcomes, whereas work engagement is linked to positive work outcomes. These findings show that workaholism should be considered a detrimental form of heavy work investment, whereas work engagement should be considered a beneficial form of heavy work investment.

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